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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO.       |
|--|-------------|----------------------|--------------------------|------------------------|
| 10/529,294   | 03/25/2005  | Raimund Ratzi        | RATZI ET AL. -2 PCT      | 9148                   |
| 25889 7590 06/18/2007<br>WILLIAM COLLARD<br>COLLARD & ROE, P.C.<br>1077 NORTHERN BOULEVARD<br>ROSLYN, NY 11576 |             |                      |                          |                        |
|  |             |                      | EXAMINER<br>ZHU, WEIPING |                        |
|  |             |                      | ART UNIT<br>1742         | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>06/18/2007  | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                               |                              |  |
|------------------------------|-------------------------------|------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/529,294 | Applicant(s)<br>RATZI ET AL. |  |
|                              | Examiner<br>Weiping Zhu       | Art Unit<br>1742             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-3 are currently under examination, wherein no claim has been amended.

### ***Status of Previous Rejections***

2. The previous rejections of claims 1-3 under 35 U.S.C. 103(a) are maintained as follows:

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall et al. (GB 975322) in view of Nishida et al. (Effect of B on the Densification and the Mechanical Properties of Sintered Iron Powder Compacts, J. Japan Inst. Metals, Vol. 54, No. 10 (1990), pp. 1147-1153) as stated in the Office action of January 23, 2007.

### ***Response to Arguments***

4. The applicant's arguments filed on April 18, 2007 have been fully considered but they are not persuasive.

First, the applicant argues that Marshall et al. ('322) disclose that nickel can be prealloyed with another metal but a prealloy of iron, nickel and boron is excluded. In

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response, the examiner notes that the rejection was based on the prior art's broad disclosure rather than preferred embodiments. As stated in the Office action of January 23, 2007, Marshall et al ('322) disclose that Ni may be added as a powdered alloy with one or more of the other metals present (lines 29-32) (i.e. as a master alloy). Marshall et al ('322) further disclose that boron may also be added in the form one or more key alloys (e.g. ferro-boron) (lines 52-60). Therefore, Marshall et al ('322) do not exclude the prealloy of iron, nickel and boron as the applicant asserted. The examiner agrees that Marshall et al ('322) by itself cannot anticipate the instant invention as argued by the applicant. However, the combination of Marshall et al ('322) with Nishida et al. with proper motivations as stated in the Office action of January 23, 2007 renders the claimed method obvious.

Second, the applicant argues that a boron content of 0.3-0.7 wt.% resulting from a proportion of 3-7 wt.% prealloy powder with the given composition of the prealloy powder of Nishida et al. is distinctly higher than the claimed boron contents of the powder mixture of 0.03 wt.% to 0.2 wt.%. In response, the examiner notes that the argument of the counsel cannot be relied upon as evidence. As stated clearly in the Office action of January 23, 2007, the B content range of the powder mixture of Marshall et al. ('322) overlaps the claimed ranges of 0.03-0.2 wt% and 0.1-0.15 wt% in the instant claims 1 and 2 respectively; The B share of the master alloy powder of Nishida et al. is close to the claimed B share in the instant claim 1. It is further noted that the B share of the master alloy powder is limited by the B content range of the powder mixture. It would have been obvious to one of ordinary skill in the art at the time

the invention was made to apply the claimed B content range of the powder mixture within the disclosed range of Marshall et al. ('322) with expected success, because Marshall et al. ('322) disclose the same utility over the entire disclosed range. See MPEP 2144.05 I.

Third, the applicant argues that the combination of appropriately high strength and decisively improved impact resistance achieved by the claimed boron contents in the powder mixture and the prealloy is disclosed neither by Marshall et al. ('322) nor by Nishida et al. In response, it has been well held where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes; a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I. In the instant case, the composition of the compact and the sintering conditions of Marshall et al. ('322) in view of Nishida et al. are identical or substantially identical to those of the instant invention, therefore, a prima facie case of obviousness exists. The same tensile strength and the same impact resistance would be expected in the sintered steel of Marshall et al. ('322) in view of Nishida et al. as in the claimed sintered steel.

### ***Conclusion***

5      **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
ROY KING  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

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WZ

6/11/2007